Naranjo, Eugenia

From: Naranjo, Eugenia
Sent: Tuesday, October 16, 2018 6:34 PM
To: Thompson, Carlie T; Len Warner
Cc: Olsen, Marian; rodgersp@battelle.org; Beth Franklin; AmyMarie AccardiDey; Castro, Enrique M
Subject: Re: HHRA Follow-up

Carlie,
Following is a path forward.

Question 1. Delete the samples listed below since they were developed with a different sampling technique and were collected for a different purpose.

These samples were collected using the PUF sorbent cartridges, which were used to determine the dissolved phase concentrations of PCBs and D/Fs. These types of samples should not be included in the surface water dataset for HHRA.

Sample ID	Depth (ft)	Location ID	Sample Date	Program	Dioxins/Furans Data
N08-CE05-TNBE-BM01	2.47	N08-CE05-TNBE	01/08/2013	HV	Yes
N08-CE05-TNBE-BM02	2.47	N08-CE05-TNBE	01/08/2013	HV	Yes
N08-CE05-TNBE-BP01	2.47	N08-CE05-TNBE	01/08/2013	HV	Yes
N10-CE05-TNNE-BM01	2.8	N10-CE05-TNNE	06/24/2013	HV	Yes
N10-CE05-TNNE-BM02	2.8	N10-CE05-TNNE	06/24/2013	HV	Yes
N10-CE05-TNNE-BP01	2.8	N10-CE05-TNNE	06/24/2013	HV	Yes

Question 2. We agree, please include all of the samples in the sediment dataset for HHRA as suggested.

Question 3. Use a multistep approach. The issues regarding the sampling and limitations of the toxicity values needs to be discussed in the Uncertainty Section. Screen the chemicals based on Benzo-j-fluoroanthene while EPA submits a request to Superfund Technical Support for a recommendation regarding a surrogate chemical. Please review the chromatographs to determine if the determination regarding benzo(j,k)fluoranthene is appropriate.

Responses to 9/18 comments: All responses are acceptable, except for this one:

Table 6.1 indicates the surrogate for Benzo(j,k)fluoranthene is based on the CalEPA value. EPA's 1993 Relative Potency Factors for PAHs does not identify a value for this PAH. Currently, EPA does not have a toxicity values for this chemical and relies on Relative Potency Factors as the source for toxicity values. In the absence of a Relative Potency Factor it is not possible to calculate risks for this chemical.

Response: The approach for this chemical is consistent with the 2018 PAR, which uses Benzo(j)fluoranthene as a surrogate for Benzo(j,k)fluoranthene. Table 6.1 of the PAR lists a CSF of 1.20E+00 $(mg/kg\text{-}day)^{-1}$ for Benzo(j)fluoranthene; the CSF entry for Benzo(j,k)fluoranthene indicates "see Benzo(j)fluoranthene." While PAR Table 6.1 does not identify a source for the CSF for Benzo(j)fluoranthene, the value of 1.20E+00 $(mg/kg\text{-}day)^{-1}$ is the same as the CalEPA value for this compound.
Please let me know if you have any questions.

Based on previous discussions I have had with Marian, the use of benzo(j)fluoranthene as a surrogate for screening and toxicity for benzo(j,k)fluoranthene in the PAR should not have occurred and benzo(j,k)fluoranthene should have been identified as having no surrogate and no toxicity value associated with it and carried through the risk assessment and ultimately addressed as an uncertainty. I believe the presence of benzo(j,k)fluoranthene is a lab separation issue as there really is no chemical specifically analyzed for as benzo(j,k)fluoranthene – usually you see benzo(j)fluoranthene or benzo(k)fluoranthene. So the PAR erred of the conservative side and used the lower RSL for benzo(j)fluoranthene for screening and then ultimately presented the benzo(j)fluoranthene toxicity value for risk calculations.

In a similar situation, the 17-mile HHRA identified **benzofluroanthene isomer** as a detected chemical and utilized benzo(b)fluoranthene RSL as a surrogate. This chem screened out from being selected as a COPC.

Let us know if you have any questions,
eugenia

From: Thompson, Carlie T <Carlie_Thompson@oxy.com>
Sent: Thursday, October 11, 2018 4:27 PM
To: Naranjo, Eugenia; Len Warner
Cc: Olsen, Marian; rodgersp@battelle.org; Beth Franklin; AmyMarie AccardiDey; Castro, Enrique M
Subject: HHRA Follow-up

Eugenia,

Below are the 3 follow-up items discussed on today's call related to the human health risk assessment.

1. Surface water samples – The attached spreadsheet provides the surface water samples identified by ToxStrategies for use in the human health risk assessment. These were determined using the same method as Battelle, i.e., all samples with a depth that would round to 3 feet. We thought this might be the easiest way to resolve the apparent mismatch in sample numbers in the PAR. Please let us know if we need to discuss, otherwise we plan to move forward with these samples.
2. Sediment samples – ToxStrategies was planning on using the SQT samples as directed in the comments on the draft RAGS tables. I know EPA was going to close the loop on whether the crab/clam samples should be included so I wanted to provide the attached PDF table from the SQT QAPP as a reference. The table identified samples associated with each accessible shoreline segment and which would be considered for use in the HHRA.
3. Responses to 9/18 comments – The attached document provides responses to the comments received on September 18 on the Table 7 series. Please let us know is any additional follow-up is needed.

Please let us know if you have any questions on these or think a call would help.

Thanks,
Carlie

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